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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/720,629 | 02/28/2001 | Atsushi Matsunaga | 13006.077 | 2515 |

7590 07/13/2004
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Grosse Pointe Woods, MI 48236

EXAMINER

JUSKA, CHERYL ANN

ART UNIT PAPER NUMBER

1771

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/720,629 | MATSUNAGA ET AL. | |
| | Examiner | Art Unit | |
| | Cheryl Juska | 1771 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Response to Amendment

2. Applicant's amendment filed April 29, 2004, has been entered. Claims 1-13 are cancelled, while claims 14-21 have been amended as requested. The pending claims are 14-22.
3. Said amendment is sufficient to withdraw the 112, 2nd rejections set forth in section 3-6 of the last Office Action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 14 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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6. Claims 14 and 16 are rejected for a lack of antecedent basis for the phrases “ the poly lactic acid based polymer with high melting point” and “the poly lactic acid based polymer with low melting point.”

Claim Rejections - 35 USC § 102/103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 14, 16, and 18-20 are rejected under 35 USC 102(b) as being anticipated by, or in the alternative, under 35 USC 103(a) as being unpatentable over EP 765 959 issued to Nagaoka et al.

Applicant has amended the claims to limit the one of the lactic acid copolymers to having a copolymerization mole ratio of 90 or more to less than 100 and the other having a copolymerization mole ratio of more than 0 to less than 10. Nagaoka teaches copolymers of L-lactic acid and D-lactic acid having a L/D mole ratio of 90/10 (Example 8).

With respect to claims 18 and 19, Nagaoka teaches a nonwoven embodiment made from bicomponent filaments comprising a first component of a copolymer of L-lactic acid/glycolic acid and a second component of a copolymer of L-lactic acid/D-lactic acid (Example 27). The first component has a lower melting point than the second component. Thus, the filaments of the copolymer of L-lactic acid/D-lactic acid are bonded by a resin of another polymer (i.e., first component of the bicomponent filament).

Therefore, claims 14, 16, and 18-20 are rejected as being obvious over the cited prior art.

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Claim Rejections - 35 USC § 103

9. Claims 15, 17, and 21 are rejected under 35 USC 103(a) as being unpatentable over EP 765 959 issued to Nagaoka et al.

Nagaoka fails to teach filaments of a first D- and L-lactic acid copolymer and filaments of a second D- and L-lactic acid copolymer that are bonded by another polymeric resin.

However, the use of binders is well known in the art of nonwovens. Applicant is hereby given Official Notice of this fact. Hence, it would have been obvious to one skilled in the art to employ an additional binder by means of another fusible fiber or by a liquid or powder adhesive binder in order to increase the strength and dimensional stability of the biodegradable nonwoven fabric. Therefore, claims 15, 17, and 21 are also rejected.

10. Claim 22 is rejected under 35 USC 103(a) as being unpatentable over EP 765 959 issued to Nagaoka et al. in view of EP 597 427 issued to Taniguchi et al.

Said claim is rejected for reasons analogous to those presented in section 10 of the last Office Action.

Response to Arguments

11. Applicant's arguments filed with the amendment have been fully considered but they are not persuasive.

12. Applicant traverses the rejection of the claims based upon Nagaoka in that the presently claimed "base cloth for a tufted carpet" is different from the mere "nonwoven fabric" taught by Nagaoka (Amendment, page 7, 1st paragraph). In response, the recitation of "base cloth for a tufted carpet" has not been given patentable weight because the recitation occurs in the

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preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

13. Applicant also argues that Nagaoka exemplifies composite filaments comprising a first component of a copolymer of lactic acids and a second component of lactic acid/ hydroxyl carbonic acid (Amendment, page 7, 2nd paragraph). In response, a reference is not limited to the working embodiments but rather is relied upon for its teachings as a whole. Nagaoka clearly teaches monocomponent or bicomponent filaments comprising two or more kinds of polylactic acid as the core and/or sheath component (page 5, lines 9-24 and Figures 4-6).

14. With respect to applicant's argument that Nagaoka does not teach or suggest the use of the claimed binder resin (Amendment, page 7, 2nd paragraph), it is noted that the teachings of Nagaoka read on the embodiments of claims 18 and 19, wherein the second component (i.e., non-lactic acid copolymer of D-lactic acid and L-lactic acid) of the bicomponent fiber corresponds to the binder of another polymer. With respect to claims 15, 17, and 21, it would have been obvious to one skilled in the art to employ an additional binder by means of another fusible fiber or by a liquid or powder adhesive binder in order to increase the strength and dimensional stability of the biodegradable nonwoven fabric.

15. With respect to the rejection of claim 22, applicant argues that Taniguchi teaches the nonwoven material is the carpet face itself and not the carpet base fabric as presently claimed (Amendment, page 8, 1st paragraph). From section 10 of the last Office Action, applicant was

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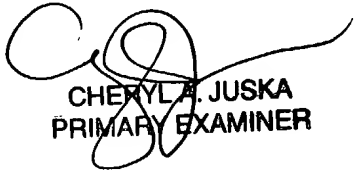
given Official Notice that nonwoven fabrics are employed as base fabrics (i.e., primary backings) for carpets. Taniguchi was relied upon to teach the importance of using biodegradable fibers in carpets so as to produce a carpet that will degrade in a landfill. Thus, applicant's argument is found unpersuasive.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CHERYL A. JUSKA
PRIMARY EXAMINER

cj
July 12, 2004